From:	Chen, Isaac
To:	Angove, Sharon
Cc:	Mohon, Mitty
Subject:	RE: Chemically treated ballast water
Date:	Tuesday, September 27, 2016 1:44:00 PM
Attachments:	image001.png

Sharon,
I don't have time to read through the whole document now. Based on the description of process, ionized Zn, Al, and … are released to water. So, they are chemically treated miscellaneous discharges.

Isaac

From: Angove, Sharon
Sent: Tuesday, September 27, 2016 12:47 PM
To: Chen, Isaac <Chen.Isaac@epa.gov>
Cc: Mohon, Mitty <mohon.mitty@epa.gov>
Subject: FW: Chemically treated ballast water

See below/attached for the answer to your question.

****

Sharon Angove

Ms. Sharon Angove
Environmental Protection/Offshore Specialist (6EN-WC)
NPDES Compliance Section
Compliance Assurance and Enforcement Division
(214) 665-6472 (office)
(214) 665-2168 (fax)
mailto:angove.sharon@epa.gov

Offshore web site: http://www.epa.gov/region6/6en/w/offshore/home.htm

****

From: Adaikpoh, Ogochukwu (Houston) [mailto:Ogochukwu.Adaikpoh@deepwater.com]
Sent: Tuesday, September 27, 2016 10:41 AM
To: Angove, Sharon <Angove.Sharon@epa.gov>
Cc: Mohon, Mitty <mohon.mitty@epa.gov>
Subject: RE: Chemically treated ballast water

Hello Sharon,

Here is some data I have found on the subject from the agency with respect to using sacrificial anodes and Impressed Current Cathodic Protection (ICCP) systems and environmental impact attached. In it contains toxicity test data on water surrounding the system.

Best Regards,

Ogochukwu Adaikpoh
Sr. HSE Advisor (Environmental) – Americas

Transocean | 4 Greenway Plaza | Houston, TX, 77046 | office 832.587.8756 | mobile 832.205.1613 | www.deepwater.com

---

From: Angove, Sharon [mailto:Angove.Sharon@epa.gov]
Sent: Monday, September 26, 2016 4:27 PM
To: Adaikpoh, Ogochukwu (Houston)
Cc: Mohon, Mitty
Subject: RE: Chemically treated ballast water

I checked with Water Quality on your question. They responded back with a question…

By description of cathodic protection process, it is chemically treated. But, does the process release any substance into water that may be toxic to aquatic life? Has any toxicity test data available for water passing through that process?

****
Sharon Angove

Ms. Sharon Angove
Environmental Protection/Offshore Specialist (6EN-WC)
NPDES Compliance Section
Compliance Assurance and Enforcement Division
(214) 665-6472 (office)
(214) 665-2168 (fax)
mailto:angove.sharon@epa.gov

Offshore web site: http://www.epa.gov/region6/6en/w/offshore/home.htm

From: Adaikpoh, Ogochukwu (Houston) [mailto:Ogochukwu.Adaikpoh@deepwater.com]
Sent: Monday, September 26, 2016 12:09 PM
To: Angove, Sharon <Angove.Sharon@epa.gov>
Cc: Mohon, Mitty <mohon.mitty@epa.gov>
Subject: RE: Chemically treated ballast water

Hello Sharon,

Thank you for your response. In light of the current definitions in place how then would the EPA define or characterize the use of cathodic protection (via sacrificial anodes and/or Impressed Current Cathodic Protection) on a MODU with respect to ballast water, fresh water and sea water discharges? If for instance a MODU has installed cathodic protection in any of its vessel tanks that contains ballast water, sea water or fresh water would such waters in those tanks be considered chemically treated per the definition in NPDES due to the use of cathodic protection by the MODU installed in the tanks?

I look forward to hearing from you all.

Thank you.

Best Regards,

Ogochukwu Adaikpoh
Sr. HSE Advisor (Environmental) – Americas

Transocean | 4 Greenway Plaza | Houston, TX, 77046 | office 832.587.8756 | mobile 832.205.1613 | www.deepwater.com

From: Angove, Sharon [mailto:Angove.Sharon@epa.gov]
Sent: Monday, September 26, 2016 10:40 AM
To: Adaikpoh, Ogochukwu (Houston)
Cc: Mohon, Mitty
Subject: RE: Chemically treated ballast water

I received a response from my Water Quality Division (they write the permits) and they state that for now, we must live with what the permit currently states. That the definitions in the permit have been there for years.

However, my Water Quality Division also stated that we may work on clearer definitions during the permit renewal process (our current OCS General Permit expires 09/30/2017 and will be reissued on or before that date).

But, for now, the definitions in the permit are all that we can provide at this time.

****

Sharon Angove

Ms. Sharon Angove
Environmental Protection/Offshore Specialist (6EN-WC)
NPDES Compliance Section
Compliance Assurance and Enforcement Division
(214) 665-6472 (office)
(214) 665-2168 (fax)
mailto:angove.sharon@epa.gov

Offshore web site: http://www.epa.gov/region6/6en/w/offshore/home.htm

---

From: Adaikpoh, Ogochukwu (Houston) [mailto:Ogochukwu.Adaikpoh@deepwater.com]
Sent: Monday, September 26, 2016 10:19 AM
To: Angove, Sharon <Angove.Sharon@epa.gov>
Cc: Mohon, Mitty <mohon.mitty@epa.gov>
Subject: RE: Chemically treated ballast water

Hello Sharon,

Thanks. I also spoke to Mitty briefly about the issue as well. I look forward to hearing from you all.

Best Regards,
Ogochukwu Adaikpoh
Sr. HSE Advisor (Environmental) – Americas

Transocean | 4 Greenway Plaza | Houston, TX, 77046 | office 832.587.8756 | mobile 832.205.1613 | www.deepwater.com

---

From: Angove, Sharon [mailto:Angove.Sharon@epa.gov]
Sent: Monday, September 26, 2016 10:18 AM
To: Adaikpoh, Ogochukwu (Houston)
Subject: RE: Chemically treated ballast water

I have your email below, and your voice mail message that came in last Friday while I was off duty.

Am researching and will get back to you very soon with the information.

****

Sharon Angove

Ms. Sharon Angove
Environmental Protection/Offshore Specialist (6EN-WC)
NPDES Compliance Section
Compliance Assurance and Enforcement Division
(214) 665-6472 (office)
(214) 665-2168 (fax)
mailto:angove.sharon@epa.gov

Offshore web site: http://www.epa.gov/region6/6en/w/offshore/home.htm

---

From: Adaikpoh, Ogochukwu (Houston) [mailto:Ogochukwu.Adaikpoh@deepwater.com]
Sent: Friday, September 23, 2016 10:56 AM
To: Angove, Sharon <Angove.Sharon@epa.gov>
Subject: Chemically treated ballast water

Hello Sharon,

I had a question regarding the definition of chemically treated seawater, freshwater and ballast water in the NPDES Permit GMG290000. I have combed through the permit but can't see a clear and concise definition of what it entails with respect to cathodic protection which is a necessity to protect the structural integrity of all maritime vessels.

I did read the following: "*Treatment Chemicals means biocides, corrosion inhibitors, or other chemicals which are used to treat seawater or freshwater to prevent corrosion or fouling of piping or equipment. Non--toxic scale inhibitors and dyes are not considered treatment chemicals*."

To the best of my knowledge cathodic protection isn't the addition of chemicals to water to prevent corrosion rather a method of protection that utilizes a "sacrificial metal" to act as an anode whilst making the metal surface intended for protection as a cathode such that the "sacrificial metal" itself corrodes over time. The US Military also utilizes cathodic protection for its marine fleet.

Any clarification you can provide is greatly appreciated.

Thank you.

Best Regards,
Ogochukwu Adaikpoh

Sr. HSE Advisor (Environmental) – Americas

Transocean | 4 Greenway Plaza | Houston, TX, 77046 | office 832.587.8756 | mobile 832.205.1613 | www.deepwater.com